

October 22, 1954

Dr. Mary B. Mitchell
Kerckhoff Laboratories
California Institute of Technology
Pasadena 4, California

Dear Dr. Mitchell:

Since 1952, we have been following your reports on poky Neurospora with enthusiastic interest, but from the distance of somewhat unrelated work. More recently, we have started some genetic studies of yeast, specifically concerning the segregation of cytoplasmic factors from the dikaryophase. I thought that eventually a comparison with Neurospora might be fruitful, and I wondered if you would send me a strain or two of poky for this purpose.

Your first paper (1952) on poky already mentioned some attempts at heterokaryon analysis. Naturally, differential segregation of nuclei and cytoplasm from a heterokaryon would help a great deal to round out the picture you have already developed, not to suggest any reservations on the interpretation already secured from ascus analysis. This is essentially what we are planning for yeast. Would you say your own earlier trials on heterokaryons were the last word? As our yeast work gets along, we might like to repeat them with various different designs to cope with different possibilities of interaction of nuclei and "poky cytoplasm".

I would be grateful to you for a and A cultures of the maternal poky. You would also save us additional work if you could furnish poky in combination with albino or with an auxotrophic mutant of some sort, preferably but not necessarily centromere-linked.

Esther sends her best; I am sorry never to have had the opportunity of meeting you myself.

Yours sincerely,

Joshua Lederberg
Professor of Genetics